**2. Spring Data Jpa Hands On**

**Demonstrate implementation of Query Methods feature of Spring Data JPA**

**CountryRepository.java**

public interface CountryRepository extends JpaRepository<Country, String> {

// Search by containing text

List<Country> findByNameContaining(String keyword);

// Search by containing text and order by name

List<Country> findByNameContainingOrderByNameAsc(String keyword);

// Filter with starting text

List<Country> findByNameStartingWith(String prefix);

}

**StockRepository.java**

public interface StockRepository extends JpaRepository<Stock, Integer> {

// Get Facebook stock details for September 2019

List<Stock> findByCodeAndDateBetween(String code, LocalDate start, LocalDate end);

// Get Google stocks with close price greater than 1250

List<Stock> findByCodeAndCloseGreaterThan(String code, BigDecimal price);

// Top 3 by volume

List<Stock> findTop3ByOrderByVolumeDesc();

// Bottom 3 Netflix close prices

List<Stock> findTop3ByCodeOrderByCloseAsc(String code);

}

**Demonstrate implementation of O/R Mapping**

**1. @ManyToOne and @JoinColumn**

@ManyToOne

@JoinColumn(name = "em\_dp\_id")

private Department department;

**2. @OneToMany, mappedBy, FetchType.LAZY, FetchType.EAGER**

@OneToMany(mappedBy = "department", fetch = FetchType.EAGER)

private Set<Employee> employeeList;

**3. @ManyToMany and @JoinTable**

**Employee.java**

@ManyToMany(fetch = FetchType.EAGER)

@JoinTable(name = "employee\_skill",

joinColumns = @JoinColumn(name = "es\_em\_id"),

inverseJoinColumns = @JoinColumn(name = "es\_sk\_id"))

private Set<Skill> skillList;

**Skill.java**

@ManyToMany(mappedBy = "skillList")

private Set<Employee> employeeList;

**Service Layer Example (EmployeeService.java)**

@Service

public class EmployeeService {

@Autowired

private EmployeeRepository employeeRepository;

@Transactional

public Employee get(int id) {

return employeeRepository.findById(id).get();

}

@Transactional

public void save(Employee employee) {

employeeRepository.save(employee);

}

}